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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,560	09/15/2003	Naoyuki Hatano	9281-4635	9744
35928	7590	02/15/2006	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US, LLP 1625 MASSACHUSETTS AVENUE, NW SUITE 300 WASHINGTON, DC 20036-2247			CHEN, ALAN S	
			ART UNIT	PAPER NUMBER
			2182	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,560	<b>Applicant(s)</b> HATANO, NAOYUKI	
	<b>Examiner</b> Alan S. Chen	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/15/2003</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because Fig. 1 lacks textual labels that would greatly assist and understanding the invention. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 6,678,728 to Uppunda et al. (Uppunda).

4. Per claims 1 and 2, Uppunda discloses a communication control device (Fig. 1 and 2, element 106 is the NIC) for controlling data communication between a host computer and a peripheral device (Fig. 1, ASIC controls communication between device on bus 120, here construed as the “host” devices and the NIC, element 106, is the peripheral device), comprising: first storage means, FIFO (Fig. 2, element 208), for storing data to be sent to the host computer (data stored in FIFO is awaiting transfer output of the NIC 106 to hosts on bus 120); second storage means for storing data outputted from the peripheral device (Fig. 2, element 206 gets data from devices on bus 118, e.g., the processor; note that it is expressly stated in Column 3, line 1+ that ); and a control unit (Fig. 2, element 202) for transferring the data stored in the second storage means to the first storage means (Column 3, lines 20+, ASIC controls operation of NIC, where once the PC is awakened, data from the second/receive FIFO 206 will be sent to the first/transmit FIFO 208, either directly or from the EEPROM 204, all being controlled by the ASIC), when receiving a transmission approval command of approving data transmission from the peripheral device to the host computer (the transmission approval command is directly reflected in as the wake-up signal that the ASIC receives, Column 3, lines 54, “...a signal is generated is generated to cause the PC 122 to exit the sleep state so that the required action may be taken.” Note that Uppunda anticipates the type of scenario that the instant application is attempting to solve where a device is in a sleep state and has the chance of failing to receive certain data sent to it while in a sleep state.

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5. Per claim 3, Uppunda discloses claim 1 wherein the second storage means is a multi-stage FIFO buffer (FIFO shown in Fig. 2 has multiple data elements, hence multi-staged).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over Uppunda in view of Wikipedia->USB.

Uppunda discloses Claim 1. Uppunda further discloses the NIC, element 106, being an external device, e.g., one that sits between the PC (Column 3, lines 1+, "NIC 106 could be external to the PC 122...", in the context of this rejection, the PC would be a peripheral since data is being sent from it to the devices on the network, i.e., the hosts) and it may use a different bus architecture, clearly one for connecting external devices.

Uppunda does not disclose expressly using the USB bus standard for the bus architecture for the NIC connecting to the PC.

Wikipedia discloses that USB is the one of the *most* prevalent bus standards to connect to external devices.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use USB for making connection between PC and NIC.

The suggestion/motivation for doing so would have been USB provides high bandwidth and a very well known industrial bus standard.

Therefore, it would have been obvious to combine Uppunda with Wikipedia->USB for the benefit of utilizing a well-known and fast external bus standard.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents and patent related publications are cited in the Notice of References Cited (Form PTO-892) attached to this action to further show the state of the art with respect to transmit and receive buffers prevent loss of data during sleep modes.

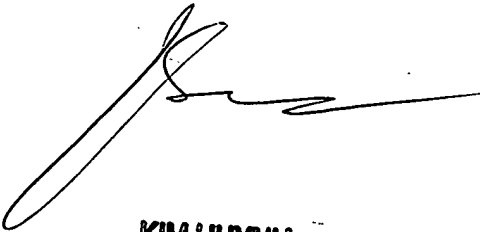
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC  
01/26/2006



**KIM HUYNH**  
**SUPERVISORY PATENT EXAMINER**

2/2/05